

Murray Hill + + +

✓

MURRAY HILL RESERVOIR.

THE

DANGER OF ITS REMOVAL

DEMONSTRATED.

372

— • • • —

NEW YORK :

S. W. GREEN'S TYPE-SETTING MACHINES, 18 JACOB ST.

—
1879.



TO THE LEGISLATURE OF THE STATE OF NEW YORK.

A RESOLUTION passed the Assembly on the 6th inst., asking the opinion of the Comptroller of the city of New York, on two points : 1. Whether the Murray Hill Reservoir constitutes an essential part of the water system of New York. 2. Whether it should not be removed, as peremptorily ordered by Mr. Varnum's bill, in order to construct a park in its place.

The undersigned, fearing from this that there may be a possibility of its removal, most respectfully present their views to the Legislature against the perpetration of such outrage ; the question being one which any citizen can understand.

The Murray Hill Reservoir, which is a distributing reservoir, constitutes an essential part of the water system of the city, and now performs the precise service which it has satisfactorily done for years past. Two thirty-six-inch mains coming down the Fifth Avenue from the Central Park Receiving Reservoir enter it at Forty-second Street, on its north side. Two other mains of thirty-six inches each leave it on its south side at Fortieth Street, and go down Fifth Avenue and thence through Broadway to Fourteenth Street.

The Central Park Reservoir is north of Eighty-fifth Street. All the mains leading southwardly from it, excepting the one newly laid in First Avenue, are connected with the Murray Hill Reservoir by a cross-main at Forty-second Street, so that every hour of the day their pressure is given to the reservoir or its equalizing pressure is given to them, thus forming one entire system for the city below, except so far as the main in the First Avenue is concerned.

Another cross main at Thirty-eighth Street south of the Murray Hill Reservoir connects the same mains, so that their

combined pressure added to that of the Murray Hill Reservoir may control the entire distribution and reach every building below it through the various pipes for distribution. This reservoir, after receiving the night's accumulation, gives it in the morning to those mains.

The Murray Hill Reservoir when full holds 24,006,000 gallons, and contains 36 feet of water. The top of its water is 114 feet 10 inches above tide, and its bottom is 78 feet 10 inches above tide. The elevation of Broadway above tide is as follows : At Bowling Green, 16 feet ; Chambers Street, 37 feet ; Fourteenth Street, 40 feet ; Twenty-third Street, 38 feet ; Thirty-fourth Street, 44 feet ; and as Broadway occupies the highest portion of the city from the Battery to Madison Square, it will readily be seen that the elevation of the Murray Hill Reservoir, 114 feet 10 inches, if kept full, is sufficient to supply to the fourth floor most of the 48,000 houses in the district below Murray Hill.

It can be filled by simply connecting it directly with the aqueduct instead of as now only with the Central Park Reservoir—a connection which would give to a large portion of the houses below Murray Hill a like advantage to that which the residents of Murray Hill enjoy from their high-service system ; and the reservoir could be kept full equally well with the reservoir at High Bridge which supplies them, similar appliances for limiting the flow and the area to be supplied being employed.

But without making any such connection with the aqueduct, if all the reservoirs were full and kept full, as they ought to be and would be if the enormous waste were controlled, which can be done and should be done, the water from the Murray Hill Reservoir would now rise, as it did, to the upper stories of the houses below it which it supplies ; but under the management adopted it fails to do so, and the reservoir, instead of containing twenty-four millions and six thousand gallons, has much less, due in part to the policy of Commissioner Campbell in crippling this reservoir by partially closing at the Central Park Receiving Reservoir the gates of the mains which proceed from it and are united with the Murray Hill Reservoir. The capacity of the mains proceeding from the Park Reservoir is seventy-three square feet and

a fraction, but only forty-four square feet of them is permitted to be used. The aqueduct itself has a capacity of $53\frac{43}{100}$ square feet.

The assertion, therefore, of Commissioner Campbell that the average quantity of water in the Murray Hill Reservoir on a given day was less than half of its actual capacity ought to have no weight, as he causes this small quantity himself by cutting off the flow, and by failing to stop a waste exceeding the consumption. But notwithstanding all this, it distributes from fifteen to twenty millions of gallons per day; and, according to the admission of Commissioner Campbell, there is in addition to the quantity which it holds in the day an "accumulation of two millions of gallons in the night, which is drawn off again in the morning." This two millions is fifty gallons for each of say 40,000 houses in that portion of the city which it largely supplies—a quantity of water which it furnishes in the morning when especially needed in upper stories which cannot be reached later in the day, a service of inestimable value.

We most respectfully submit to the Legislature that it does not need an engineer to understand the benefit of having this large quantity of water two miles nearer to these 40,000 houses than the Central Park Reservoirs, communicating its pressure to the pipes immediately under it, and serving a large body of citizens in a way that would otherwise be impossible. A single illustration shows this benefit, viz.: the water at the City Hall rises no higher than the basement, while at Madison Square, two miles nearer the reservoir, it rises now every night 42 feet higher. The elevation of the land at both places is nearly the same, but at the City Hall the water is drawn from a pipe of more than two miles in length, which is exposed to constant drafts upon it, and to a diminished pressure. The houses at Madison Square are about three quarters of a mile south of the Murray Hill Reservoir, but would be over two miles and three quarters from a reservoir if the one at Murray Hill were removed, and in that case be exposed to the same lack of water which for four years has existed at the City Hall. It is no answer to say that the pipes *may* be so constructed and used as to prevent this difficulty; the fact now is they are not, and there is too

little room in the streets, filled as they are with sewers, gas-pipes, water-pipes, and other pipes, to permit an improved system.

Can it be possible that the Legislature will order a reservoir to be removed from the central portion of the city, seated on the only eminence which commands the four miles of the city below, and which is capable of holding twenty-four million and six thousand gallons of water, equal to five hundred gallons for each of 48,000 houses !

By your authority, Commissioner Campbell, under the high-service system, supplies the comparatively small population of Murray Hill with water pumped from the aqueduct at High Bridge ; and by the same authority he is now engaged at Ninety-seventh Street in constructing a high-service system for the few that live on the elevated portions near that point not less than sixty feet above tide. The general water system below Thirty-fourth Street for the great mass of the people is weakened by thus having ten or fifteen million gallons taken from it and distributed over only favored areas. But if we use the reservoir at Murray Hill in the manner shown above without the expense of pumping, for an additional high-service, a large and valuable district of the city would be greatly benefited from the high head of water which would thus be created. For the purpose of putting out fires this would be of inestimable value, as by merely attaching a hose to hydrants most of the houses below Thirty-fourth Street could have the water thrown upon their roofs.

In the present dangerous, leaky, and cracked condition of the aqueduct, why dispense with any reservoir ? The 24,000,000 gallons it holds might be of inestimable value as a protection to the city in case of a serious break in the aqueduct. We have dispensed with wells and pumps, and in case of a break have literally no means of water supply except the small storage capacity which now exists, and which it would be madness to diminish. The city should add largely to its storage capacity, not diminish it, as it has only a single aqueduct, and that one which for 19,000 feet of its length is greatly out of repair, and for 9000 feet needs to be immediately strengthened.

The month of April, named by the constructing en-

gineer of the aqueduct, Mr. John B. Jervis, for its repair, has already passed without the repairs being made. It will be impossible to do the work in May, as there is in all the reservoirs in the city but little over a week's supply of water, and it takes forty-five hours to turn the water off and on. This would leave only six or seven days for inside repairs, by which time the supply of water for the city would be entirely exhausted, while to do the repairs will require more than that time. The Commissioner says that "perhaps no break may occur," but the suggestion of its possibility should prevent the removal of the reservoir.

The lands covered by the reservoir and that of the Park adjoining were granted to the city in 1686 and 1730 by the Dongan and Montgomery charters. This grant is protected by the constitution, sec. 18, art. 1. Their proceeds are pledged to the Commissioners of the Sinking Fund. The Commissioners are the Mayor, Recorder, Comptroller, City Chamberlain, and the President of the Board of Aldermen. The property is valued at \$2,696,000. By the act creating the Croton Aqueduct Board, passed in 1849 and still in force, the Board was charged with the "management, *preservation*, and repairs" of the reservoirs and other structures of the water system. But yet Commissioner Campbell, who says in his report that after removing the reservoir the Commissioners would have power to sell the lands, undertakes to recommend that they be taken from the power of the Commissioners without their consent, he not being one of them; that the land be converted into a park, he not being one of the Park Commissioners; that the reservoir shall be destroyed instead of *preserved*, and that the property of the city shall be wrested from its present use, and finally disposed of without the consent of the owners of the fee.

We therefore respectfully remonstrate against the passage of any act for the removal of the Murray Hill Reservoir.

DEXTER A. HAWKINS,	E. L. FANCHER,
SINCLAIR TOUSEY,	GEORGE LAW,
JACKSON S. SCHULTZ,	EDWARDS PIERREPONT,
MARSHALL O. ROBERTS,	GORDON W. BURNHAM,
GEORGE B. BUTLER.	

Dated, NEW YORK, May 7th, 1879.

